

RESTRICTION REQUIREMENT:

The Examiner restricted the application to one of the following two groups:

- I. Claims 1-21, drawn to an alpha sulfofatty acid ester composition, classified in class 510, subclass 155; or
- II. Claims 22 and 23, drawn to a method of making an alpha sulfofatty ester composition classified in class 510, subclass 459.

REMARKS

With entry of this amendment, claims 1-21 are pending in this case. Claims 22-23 were withdrawn from further consideration by the Examiner as drawn to a non-elected group. To expedite prosecution of this case, Applicants have canceled claims 22-23, without prejudice to Applicants' right to prosecute the subject matter of these claims in a related, co-pending application.

Claims 9 and 17 have been amended. Claim 9 has been amended as discussed below.

Claim 17 is amended to further clarify the claim language, as discussed below.

No new matter is introduced by these amendments.

Restriction Requirement

The Examiner required restriction to one of the two groups, as identified above and in the office action. Applicants confirm the election of Group I (corresponding to claims 1-21), drawn to alpha sulfofatty acid ester compositions, without traverse.

Rejections under 35 USC §112, Second Paragraph

Claim 17 is rejected under 35 U.S.C. §112, second paragraph, the Examiner believing the claim is indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In particular, the Examiner believes that claim 17 is vague and indefinite in that it is unclear what is meant by "substantially", in the context of  $\alpha$ -sulfofatty acid ester that is substantially free of components that cause more than a minor amount of additional di-salt formation.

Applicants respectfully traverse the rejection, believing that the phrase would be understood by a person of ordinary skill in the art. Whether a claim is definite depends on whether

those skilled in the art would understand the scope of the claim when the claim is read in light of the specification. *See North Am. Vaccine, Inc. v. American Cyanamid Co.*, 28 USPQ2d 1333, 1339 (Fed. Cir. 1993). It is the disclosure in the specification itself, not the technical form of the disclosure that counts. *See* MPEP § 2173.05(b)D (“The term ‘substantially’ is often used in conjunction with another term to describe a particular characteristic of the claim invention.”) Applicants respectfully note that the ordinary meaning of the term “substantially” is “largely but not wholly that which is specified.” *York Products Inc. v. Central Tractor Farm & Family Center*, 99 F.3d 1568, 40 USPQ2d 1619, 1622-23 (Fed. Cir. 1996). Thus, the phrase “substantially free” connotes an  $\alpha$ -sulfofatty acid ester that is largely, but not wholly free of components that cause more than a minor amount of additional di-salt formation.

Without acquiescing to the Examiner’s rejection, but to proceed with more compact prosecution of this case, Applicants amend dependent claim 17 to clarify that the  $\alpha$ -sulfofatty acid ester is free of additional components that cause more than a minor amount of additional di-salt formation. Applicants therefore respectfully request reconsideration and withdrawal of the rejection of claim 17 under 35 U.S.C. § 112, second paragraph.

Rejections under 35 USC § 102(b)

Claims 1-5, 7, 9-14 and 16-20 stand rejected under 35 U.S.C. 102(b) as anticipated by Rolfes (U.S. Patent No. 5,972,861). The Examiner believes that Rolfes teaches detergent compositions comprising a surfactant mixture containing effective amounts of a base soap, one or more fatty acid methyl ester sulfonates, minor amounts of additional surfactant materials, and other non-surfactant additives, such as sequestrants, builders, enzymes, brighteners, *etc.* Accordingly, the Examiner believes the teachings of Rolfes appear to anticipate the material limitations of the instant claims.

To establish a *prima facie* case of anticipation, a reference must disclose each and every element and limitation of the claim in the reference, either expressly or inherently. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed Cir. 1987). The claim as a whole must be compared to the reference.

Applicants respectfully traverse the rejection of claims 1-5, 7, 9-14, and 16-20 as anticipated by Rolfes. Rolfes does not disclose a composition having reduced di-salt formation comprising a first portion or detergent portion and a second portion, in which the first portion or

detergent portion includes additional detergent components that cause more than a minor amount of additional di-salt formation. Instead, Rolfes teaches that, "[o]ther non-surfactant additive[s] suitable for use in the present invention include those additives found in traditional laundry detergent compositions. ... The only limitation in the use of such additives is that they do not degrade either the composition or the material it cleans." (U.S. Patent No. 5,972,861, at col. 4, lines 53-59 (emphasis added).) Thus, Rolfes discloses excluding additives that would degrade  $\alpha$ -sulfofatty acid esters, not segregating those additives into a separate portion within the composition.

In contrast, Applicants' instant claims generally recite a first or detergent portion and a second portion or  $\alpha$ -sulfofatty acid ester. The first portion, or  $\alpha$ -sulfofatty acid ester, is distinct from the second or detergent portion. (See Specification at page 3, line 25 to page 4, line 13.) The second or detergent portion includes a detergent component that causes more than a minor amount of additional di-salt formation. Thus, the instant claims contain distinct structural elements that distinguish Applicants' claimed invention from that of Rolfes, which teaches excluding such components, not sequestering them.

Applicants respectfully believe that Rolfes does not anticipate the Applicants' presently claimed invention. Applicants therefore respectfully request that the Examiner reconsider and withdraw the rejection of claims 1-5, 7, 9-14, and 16-20 as anticipated in view of Rolfes.

#### Ownership of the Invention(s)

In considering the patentability of the claims under 35 U.S.C. § 103(a), the Examiner presumed that the subject matter of these claims was commonly owned at the time the invention(s) was made. Applicants confirm that the subject matter of the various claims of the instant application was commonly owned at the time the invention(s) was made.

#### Rejections under 35 U.S.C. § 103(a)

Claims 1-5, 7, 9-14 and 16-20 stand rejected alternatively as obvious in view of Rolfes (U.S. Patent No. 5,972,861), the Examiner believing that it would have been obvious to one of ordinary skill in the art to arrive at the claimed amount of moisture in the composition in order to provide the optimum cleaning properties to the composition since Rolfes teaches that the amount of miscellaneous ingredients and water added to the composition may be varied. The Examiner also notes that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.

To establish a prima facie case of obviousness, 1) the reference(s) must teach or suggest all the claim limitations, 2) there must be a suggestion or motivation in the reference or in the knowledge generally available to one of ordinary skill in the art to modify the reference, and 3) there must be a reasonable expectation of success. "The mere fact that the [reference] may be modified in the manner suggested by the Examiner does not make the modification obvious unless the [reference] suggested the desirability of the modification." *In re Fritch*, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

Applicants respectfully traverse the rejection of these claims in view of Rolfes, Applicants believing that Rolfes fails to teach or suggest all of the limitations of Applicants' instant claimed invention. Rolfes does not disclose a composition having reduced di-salt formation comprising a first portion or detergent portion and a second portion, in which the first portion or detergent portion contains additional detergent components that cause more than a minor amount of additional di-salt formation. Instead, Rolfes teaches that "[o]ther non-surfactant additive[s] suitable for use in the present invention include those additives found in traditional laundry detergent compositions. ... The only limitation in the use of such additives is that they do not degrade either the composition or the material it cleans." (U.S. Patent No. 5,972,861, at col. 4, lines 53-59 (emphasis added).)

Applicants do not believe that Rolfes teaches or suggests having a first portion, or  $\alpha$ -sulfofatty acid ester, that is separate from the second or detergent portion (*i.e.*, post-added). Instead, Rolfes teaches excluding materials that degrade components such as  $\alpha$ -sulfofatty acid esters. Applicants, therefore respectfully believe that Rolfes fails to teach or suggest all of the elements and limitations of Applicants' claimed invention.

Furthermore, there is no suggestion or motivation in Rolfes to modify the composition to make Applicants' claimed composition. Although the Examiner asserts that Rolfes teaches that the composition can be in solid, liquid, paste, granular or bead form, Rolfes teaches that such forms would exclude di-salt forming substances. Indeed, there is no teaching or suggestion in Rolfes to sequester di-salt forming substances, instead of simply excluding them. *See In re Fritch*, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992) ("The mere fact that the [reference] may be modified in the manner suggested by the Examiner does not make the modification obvious unless the [reference] suggested the desirability of the modification.") Further, by teaching exclusion, as opposed to segregation, Rolfes actually teaches away from Applicants' claimed invention. A

reference "must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." MPEP § 2141.02.

Applicants therefore respectfully request that the Examiner reconsider and withdraw the rejection of claims 1-5, 7, 9-14, and 16-20 as obvious in view of Rolfes.

Claims 1, 4, 5-10 and 13-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over EP 0 336 740 (the '740 application). The Examiner believes that the '740 application teaches a detergent composition including a surfactant system comprising a fatty acid ester sulfonate and a nonionic surfactant. The Examiner states that the '740 application discloses additional surfactant materials, such as alkyl sulfates and sulfonates, builder material, such as carbonates, bicarbonates, silicates, *etc.*, and enzymes such as proteases, cellulases, amylases, fluorescent agents, *etc.* It is reasoned that the disclosed detergent compositions may be prepared by a number of different methods, and in the case of granular product, they may be prepared by dry-mixing or co-agglomeration.

The Examiner reasons that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a composition having reduced di-salt formation containing a first portion of an alpha sulfofatty acid ester, a second portion of additional detergent components, and the other requisite components of the composition in the specific proportions as recited by the instant claims. The Examiner further reasons that the broad teachings of the '740 application suggest a composition having reduced di-salt formation containing a first portion of an alpha sulfofatty acid ester, a second portion of additional detergent components wherein the second portion has a free moisture content of less than 6% by weight, and the other requisite components of the composition in the specific proportions as recited by the instant claims.

The Examiner acknowledges that the '740 application does not specifically teach a composition having reduced di-salt formation containing a first portion of an alpha sulfofatty acid ester, a second portion of additional detergent components, wherein the second portion has a free moisture content of less than 6% by weight, and the other requisite components of the composition in the specific proportions as recited by the instant claims.

Applicants first note that not all of the presently pending claims recite a moisture content of less than about 6 weight percent. Applicants believe that the discussion of that limitation is made in reference to claims reciting that limitation, and not to all the pending claims.

Applicants respectfully traverse the rejection of claims 1, 4, 5-10 and 13-19 in view of the '740 application. Applicants respectfully believe that the '740 application does not disclose a composition comprising first or detergent portion, and a separate second portion or  $\alpha$ -sulfofatty acid ester, where the second or detergent portion comprises additional detergent components that cause more than a minor amount of additional di-salt formation. For example, referring to Examples 1-6, the '740 application generally discloses compositions including anionic surfactant and sodium tripolyphosphate. Those examples do not teach segregate  $\alpha$ -sulfofatty acid ester from a material such as sodium tripolyphosphate, which can cause additional di-salt formation.

Applicants also believe that there is no suggestion in the '740 application to segregate materials that cause additional di-salt formation from  $\alpha$ -sulfofatty acid ester. Instead, the '740 application simply discloses a variety of methods, such as dry blending, co-agglomeration, and spray-drying for forming a detergent composition. Further, the '740 application does not disclose, teach or suggest that di-salt formation is a problem, or that reduced di-salt formation is desired. Because the '740 application fails to appreciate this problem, it fails to suggest any solution to the problem, such as segregating components that cause more than a minor amount of additional di-salt formation from the  $\alpha$ -sulfofatty acid ester. For example, referring to column 4, lines 33-51, the '740 application teaches combining a surfactant system with builder material and filler salts by spray drying to form a base powder. That slurry can be spray dried and mixed with heat-sensitive materials, such as bleaches and enzymes. Nonionic surfactants can be sprayed onto the base powder.

There is not teaching or suggestion to segregate  $\alpha$ -sulfofatty acid ester into a separate first portion. Indeed, the '740 application generically teaches spray-drying the surfactant system with builders, which can cause additional di-salt formation.

There is also no suggestion or motivation in the '740 application to modify the disclosed compositions to make Applicants' claimed compositions. Without an appreciation of the problems of di-salt formation, Applicants do not believe that the '740 application can be said to properly disclose a solution to that problem. For example, referring to Examples 1-6, the '740 application generally discloses compositions including anionic surfactant and sodium tripolyphosphate. There is no teaching or suggestion to modify the composition to segregate  $\alpha$ -sulfofatty acid ester from the sodium tripolyphosphate.

Applicants, therefore, respectfully request reconsideration and withdrawal of the rejection of claims 1, 4, 5-10 and 13-19 over EP 0 336 740.

Claims 1-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaminsky (U.S. Patent No. 4,487,710), the Examiner believing that Kaminsky teaches granular detergent compositions which contain an anionic surfactant (including water-soluble salts of esters of alpha-sulfonated fatty acids), an ethoxylated surfactant, and a water-soluble neutral or alkaline salt (*e.g.*, alkali metal carbonates, silicates, borates, *etc.*) and optional components such as suds suppressors, anti-corrosion agents, dyes, optical brighteners, enzymes, perfumes, *etc.*

It is acknowledged that Kaminsky does not specifically teach a composition having reduced di-salt formation containing a first portion of an alpha sulfofatty acid ester, a second portion of additional detergent components wherein the second portion has a free moisture content of less than 6% by weight, and the other requisite components of the composition in the specific proportions as recited by the instant claims. The Examiner reasons, however, that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a composition having reduced di-salt formation containing a first portion of an alpha sulfofatty acid ester, a second portion of additional detergent components wherein the second portion has a free moisture content of less than 6% by weight, and the other requisite components of the composition in the specific proportions as recited by the instant claims, with a reasonable expectation of success and similar results with respect to other disclosed components. The Examiner further reasons that the broad teachings of Kaminsky suggests a composition having reduced di-salt formation containing a first portion of an alpha sulfofatty acid ester, a second portion of additional detergent components wherein the second portion has a free moisture content of less than 6% by weight, and the other requisite components of the composition in the specific proportions as recited by the instant claims.

Applicants respectfully traverse the rejection of claims 1-20 in view of Kaminsky. Applicants respectfully believe that Kaminsky does not disclose a composition comprising a first or  $\alpha$ -sulfofatty acid ester portion and a separate, second, or detergent, portion where the second or detergent portion comprises additional detergent components that cause more than a minor amount of additional di-salt formation. Instead, Kaminsky teaches forming an intimate mixture of anionic and ethoxylated surfactants and then agglomerating the intimate mixture with neutral or alkaline salt. (*See* Kaminsky at col. 2, lines 46-65, col. 3, lines 11-25, col. 8, lines 41-51.) Applicants understand

that Kaminsky simply teaches that any disclosed anionic surfactant can be combined with any disclosed water soluble or alkaline salt or other di-salt forming component. There is no teaching or suggestion in Kaminsky to form a separate portion comprising  $\alpha$ -sulfofatty acid ester, instead of combining  $\alpha$ -sulfofatty acid ester with detergent components that cause more than a minor amount of additional di-salt formation (*Compare, for example*, Kaminsky at col. 5, line 32 to col. 6, line 51, *with* Instant Specification, page 3, line 25 to page 4, lines 13.)

Kaminsky also fails to disclose, teach or suggest that di-salt formation is a problem, or that reduced di-salt formation is desired. Because Kaminsky, fails to appreciate this problem, it fails to disclose any solution to the problem, such as segregating detergent components that cause more than a minor amount of additional di-salt formation from the  $\alpha$ -sulfofatty acid ester. For example, Kaminsky teaches forming intimate mixtures of the Group A components and then spraying those components onto a dry mix of Group B components to form an agglomerate. (*See* Kaminsky at col. 8, lines 41-51.) The resulting composition would not form separate particles of  $\alpha$ -sulfofatty acid ester and other detergent components.

Finally, there is no suggestion or motivation in Kaminsky to modify the disclosed compositions to make Applicants' claimed compositions. Without an appreciation of the problem of di-salt formation, Applicants do not believe that Kaminsky can be said to disclose a solution to that problem, or to suggest or motivate the skilled artisan to modify the disclosed composition to make Applicants' claimed invention. For example, referring again to the examples, there is no teaching or suggestion to segregate the anionic surfactant from di-salt forming substances.

Applicants, therefore, respectfully request reconsideration and withdrawal of the rejection of claims 1-20 over Kaminsky.

Claims 8 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rolfes. The Examiner relies on Rolfes, as set forth in the rejection of claims 1-5, 7, 9-14, and 16-20 under 35 U.S.C. § 103(a). The Examiner acknowledges that Rolfes does not specifically teach a composition which is substantially free of secondary anionic surfactant or that contains an enzyme in addition to the other requisite components of the composition as recited by claims 8 and 15.

Applicants respectfully traverse the rejection of claims 8 and 15. For the reasons discussed above, Applicants do not believe that Rolfes properly makes obvious independent claims 1 and 16, from which these claims depend.



Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Rolfes and further in view of Kaminsky or EP 0 336 740. The Examiner relies on Rolfes as applied to claims 1-5, 7, 9-14 and 16-20). It is acknowledged that Rolfes does not teach the specific builder materials recited by instant claim 6. Kaminsky and the '740 application are also relied upon as set forth in the office action.

The Examiner reasons that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use a builder material such as a silicate in the cleaning composition taught by Rolfes, with a reasonable expectation of success. The Examiner further reasons that Kaminsky or '740 application teach the use of silicates as builder materials in similar detergent compositions and Rolfes teaches the use of builder materials in general.

Applicants respectfully traverse the rejection of claim 6. For the reasons discussed above, Applicants do not believe that Rolfes properly makes obvious independent claim 1, from which this claim depends. Further, for the reasons discussed above, neither Kaminsky nor EP '740 overcome the deficiencies of Rolfes. These references, alone or in combination, fail to teach, suggest or motivate a person of ordinary skill in the art to make compositions of a separate  $\alpha$ -sulf fatty acid ester and a second portion.

Without acquiescing to the rejections, but to proceed with more compact prosecution of this case, and to further clarify the claim language, Applicants amend claim 9 to recite a granular or powdered  $\alpha$ -sulf fatty acid ester composition, comprising: a detergent portion and  $\alpha$ -sulf fatty acid ester, the detergent portion and  $\alpha$ -sulf fatty acid ester each comprising a plurality of separate particles; whereby additional di-salt formation is reduced. Applicants do not believe that this amendment narrows the claims, but is simply consonant with the instant specification, which describes the detergent portion and  $\alpha$ -sulf fatty acid ester are separate portions, as discussed above. See Instant Specification at page 3, line 25 to page 4, line 13.

Applicants therefore respectfully request reconsideration and withdrawal of the rejections of claim 1-20 under 35 U.S.C. § 102 and § 103.

Double Patenting

Claims 1-21 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-27 of co-pending Application No. 09/574,764. Although the conflicting claims are not identical, the Examiner believes that they are not patentably distinct from each other because claims 1-27 of Application No. 09/574,764 encompass the material limitations of the instant claims.

Without acquiescing to the propriety of the rejection, Applicants are considering filing a terminal disclaimer with respect to this rejection. Applicants respectfully request that this rejection be held in abeyance until the instant claims are otherwise held to be allowable.

Claims 1-21 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-25 of U.S. Patent No. 6,057,280 to Huish *et al.* The Examiner believes that although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-25 of US 6,057,280 encompass the material limitations of the instant claims.

Without acquiescing to the propriety of the rejection, Applicants are considering filing a terminal disclaimer with respect to this rejection. Applicants respectfully request that this rejection be held in abeyance until the instant claims are otherwise held to be allowable.

Allowable Subject Matter

Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants thank the Examiner for indicating that this claim is allowable.

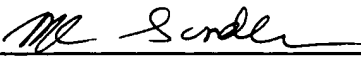
CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 206-467-9600.

Respectfully submitted,

Dated: 10/18/01

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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

1                    9. (Once amended) ~~An~~ A granular or powdered  $\alpha$ -sulfofatty acid ester composition,  
2 comprising:  
3                    a detergent portion comprising at least one detergent component that causes more  
4 than a minor amount of additional di-salt formation; and  
5                     $\alpha$ -sulfofatty acid ester which is ~~post-added to the~~ detergent portion;  
6                    the detergent portion and  $\alpha$ -sulfofatty acid ester each comprising a plurality of  
7 separate particles; whereby additional di-salt formation is reduced.

1                    17. (Once amended) The method of ~~claim~~ 16, wherein the  $\alpha$ -sulfofatty acid ester is  
2 ~~substantially~~ free of components that cause more than a minor amount of additional di-salt  
3 formation.